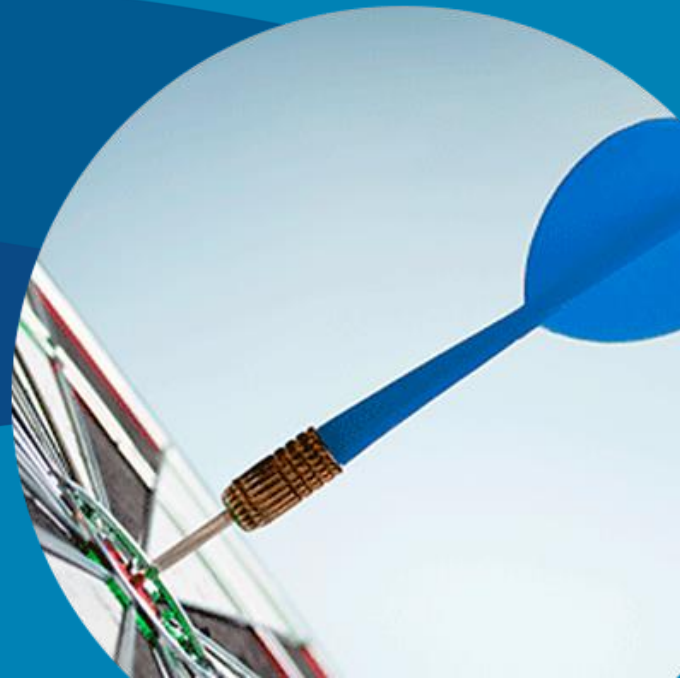




Actuarial Consulting Services for the Texas Municipal Retirement System

September 27 - 28, 2018

Mark Randall
Joe Newton



GRS – Our Vision

To be the premier provider of innovative and sustainable benefit solutions in the industry

GRS – Our Core Values

- ◆ **Respect** | We provide a collaborative work environment that respects the diversity, talents, and professional aspirations of our associates
- ◆ **Professionalism** | We exhibit professionalism and ethics in all aspects of our business
- ◆ **Quality** | We provide high quality work products
- ◆ **Innovation** | We put innovative ideas into action

The Public Sector Leader

Statewide Retirement Clients of GRS' Southwest Region:

- ◆ Alaska RMB (PERS and TRS)
- ◆ Arizona State Retirement System
- ◆ Arkansas SHERS
- ◆ Colorado FPPA
- ◆ ERS of Hawaii
- ◆ Kentucky Retirement System
- ◆ New Mexico Teachers' Retirement System
- ◆ Oklahoma Teachers' Retirement System
- ◆ ERS of Rhode Island
- ◆ South Carolina Retirement System
- ◆ Employees' Retirement System of Texas
- ◆ Texas Municipal Retirement System
- ◆ Teacher Retirement System of Texas
- ◆ Utah Retirement Systems
- ◆ Wyoming Retirement System

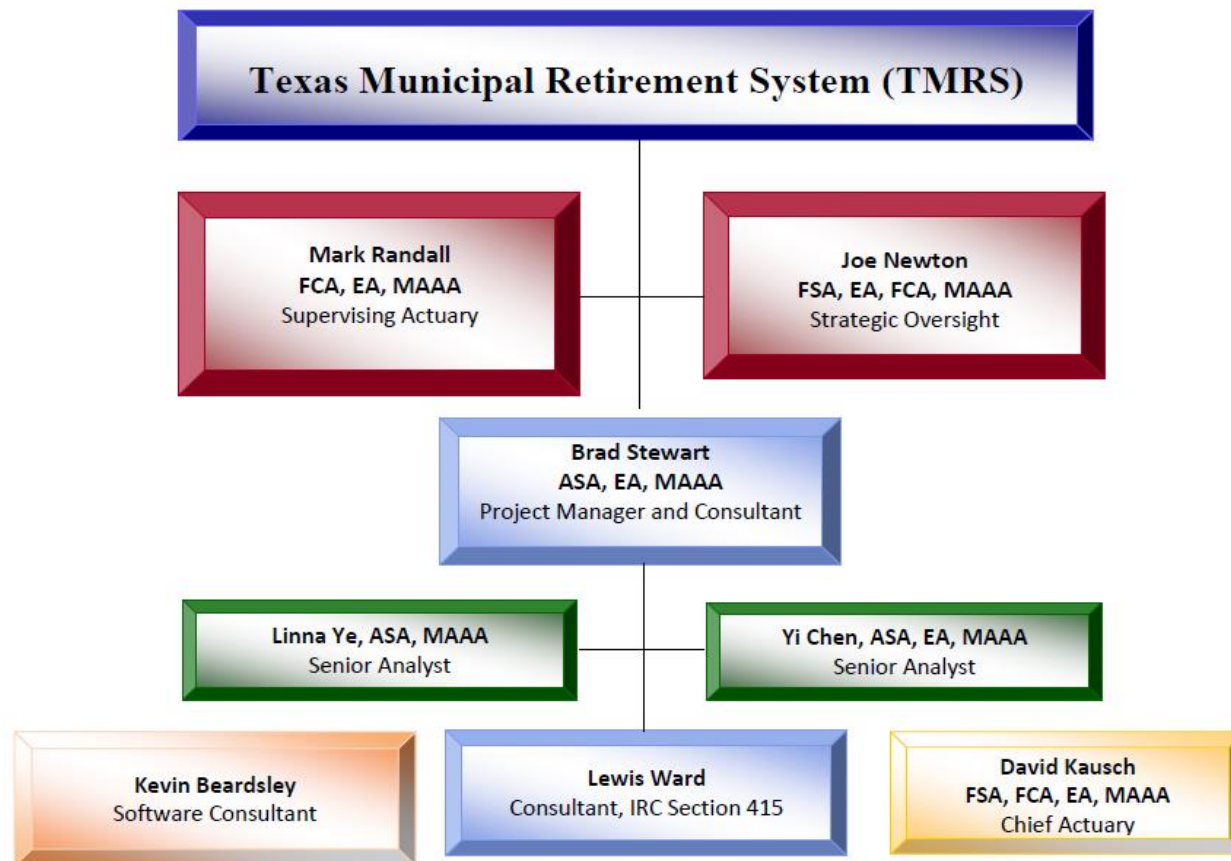
Texas experience second to none

A Sampling of GRS' Texas Pension Clients:

- ◆ Employees' Retirement System of Texas
- ◆ Teacher Retirement System of Texas
- ◆ Texas Municipal Retirement System
- ◆ Dallas Employees' Retirement Fund
- ◆ Houston Municipal Employees' Pension System
- ◆ Houston Police Officers Pension System
- ◆ Austin Employees' Retirement System
- ◆ Austin Police Retirement System
- ◆ Fort Worth Employees' Retirement Fund
- ◆ San Antonio VIA
- ◆ DFW Airport, City of Plano, City of Irving, City of Arlington

GRS provides retiree medical valuations (OPEB) to hundreds of cities and counties in Texas

Your GRS Team – “consistency”



Strategic Partner with TMRS[®]

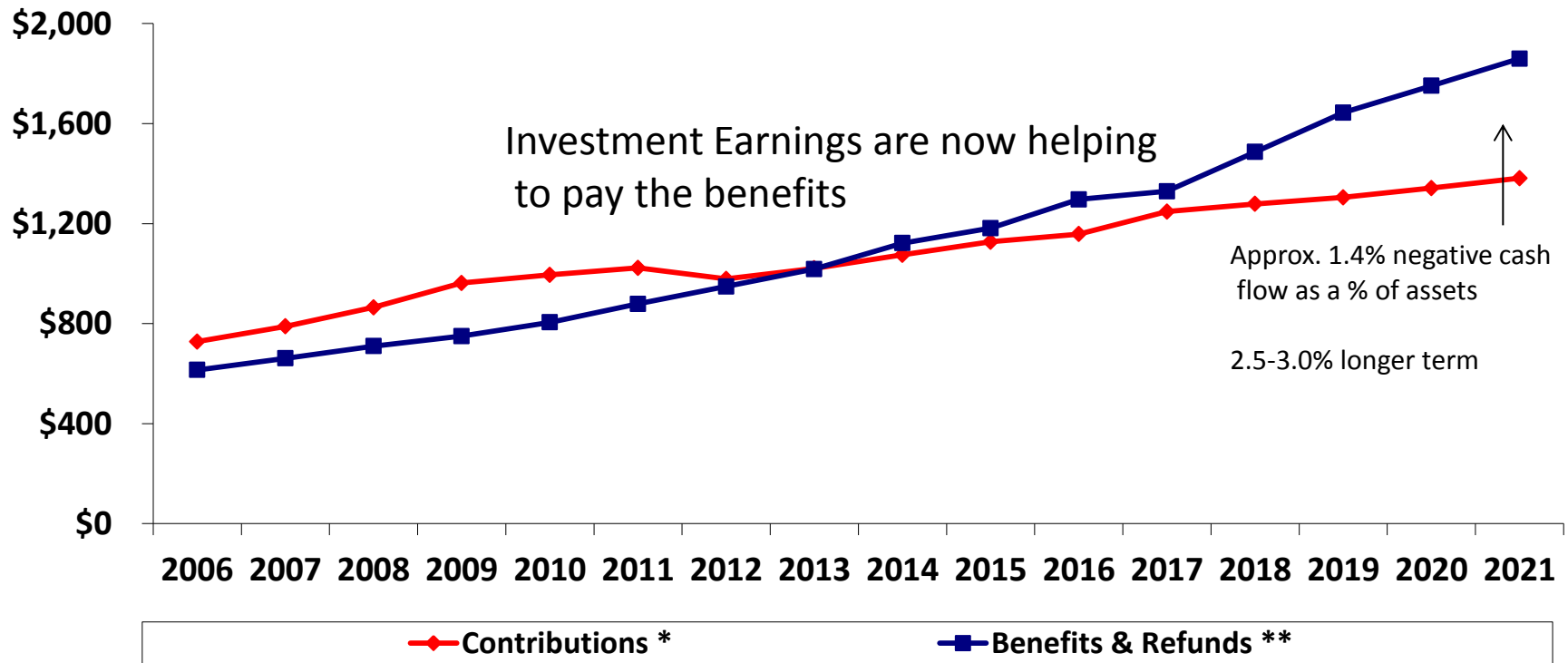
TEXAS MUNICIPAL RETIREMENT SYSTEM

- ◆ We do more than just calculate numbers
- ◆ We want to continue to bring our national experience, creativity, and strategic thought leadership to assist TMRS in achieving all of its goals, not just ones that are actuarial
 - Continue to participate in strategic planning sessions
- ◆ We will continue to develop new strategies to keep TMRS in a position to be successful
 - Rate stabilization techniques and risk management strategies
 - More frequent macro economic checks
- ◆ We want to continue to assist you in providing exemplary services to your clients
 - GRID enhancements

Strategic Thought Leader

- ◆ GRS recommendations implemented at TMRS since 2008:
 - ▶ Development of optimal reserve strategies
 - ▶ Restructuring the CSARF (SB 350) saved cities more than \$1 billion, without benefit cuts
 - ▶ Generational mortality for liability calculations
 - ▶ Generational APR's
 - ▶ Changing from projected unit credit to entry age normal actuarial cost method
 - ▶ Developing a funding policy that minimizes artificial volatility
 - ▶ Financing of ad hoc COLAs
 - ▶ Dynamic assumptions based on plan provisions
 - ▶ Dynamic assumptions and funding policies based on the size of the entity
 - ▶ Developing an asset smoothing method that maximizes the advantages of asset smoothing while removing the disadvantages from traditional methods
 - ▶ Always minimizing impact on contribution rates by optimizing the tools available
 - ▶ Combining of asset allocation work from investment staff with the setting of economic assumptions for funding valuations

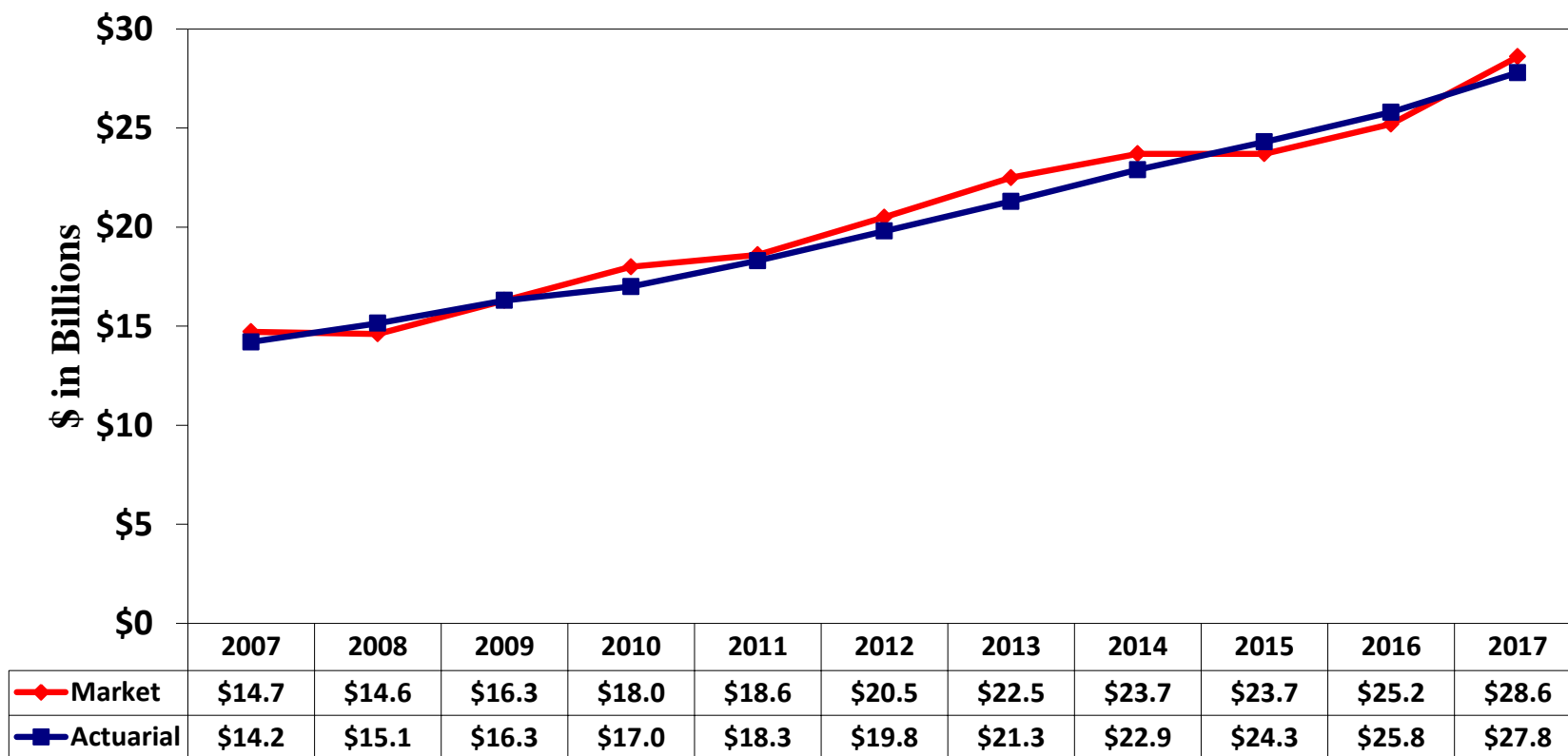
Projected Contributions vs. Benefits



* Includes member and employer contributions

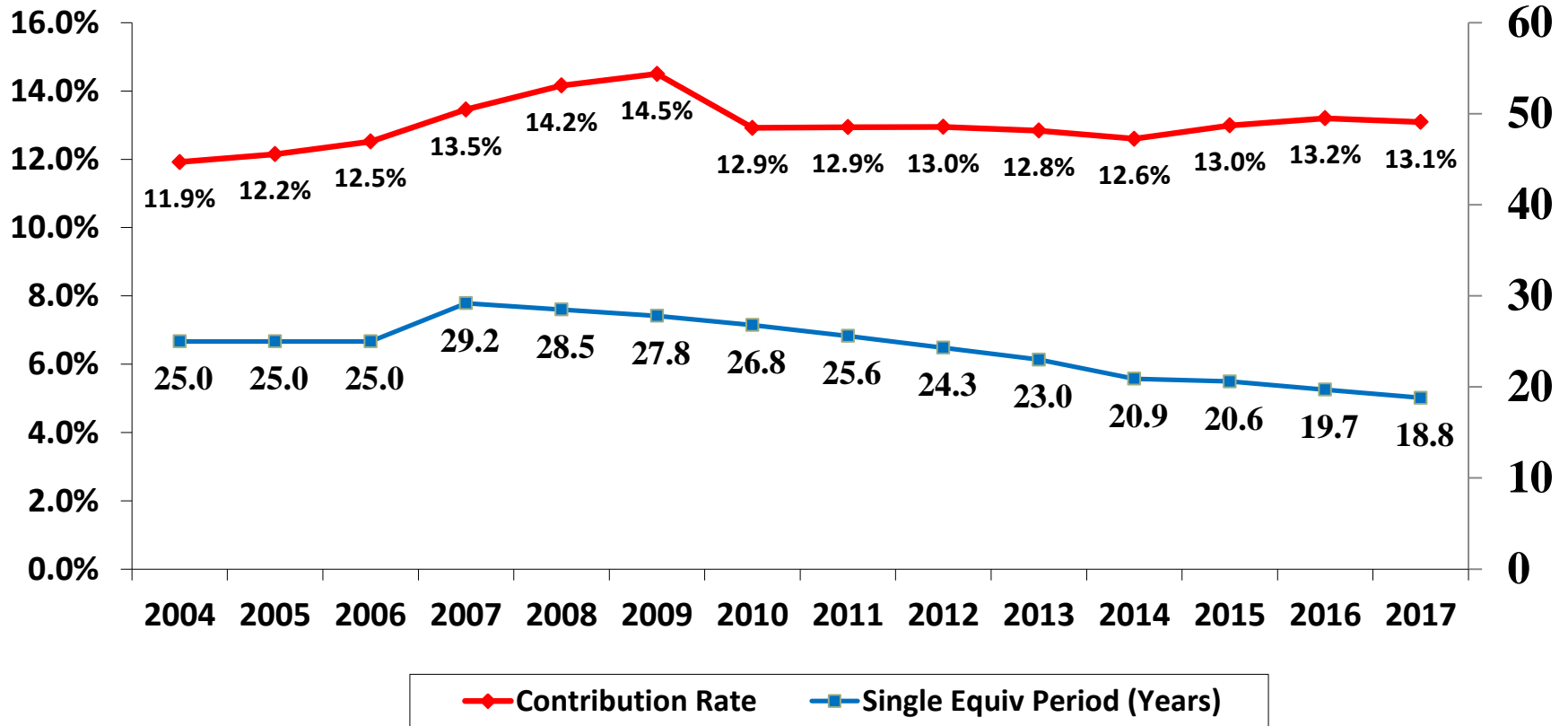
** Includes administrative and investment expenses

Market and Actuarial Values of Assets

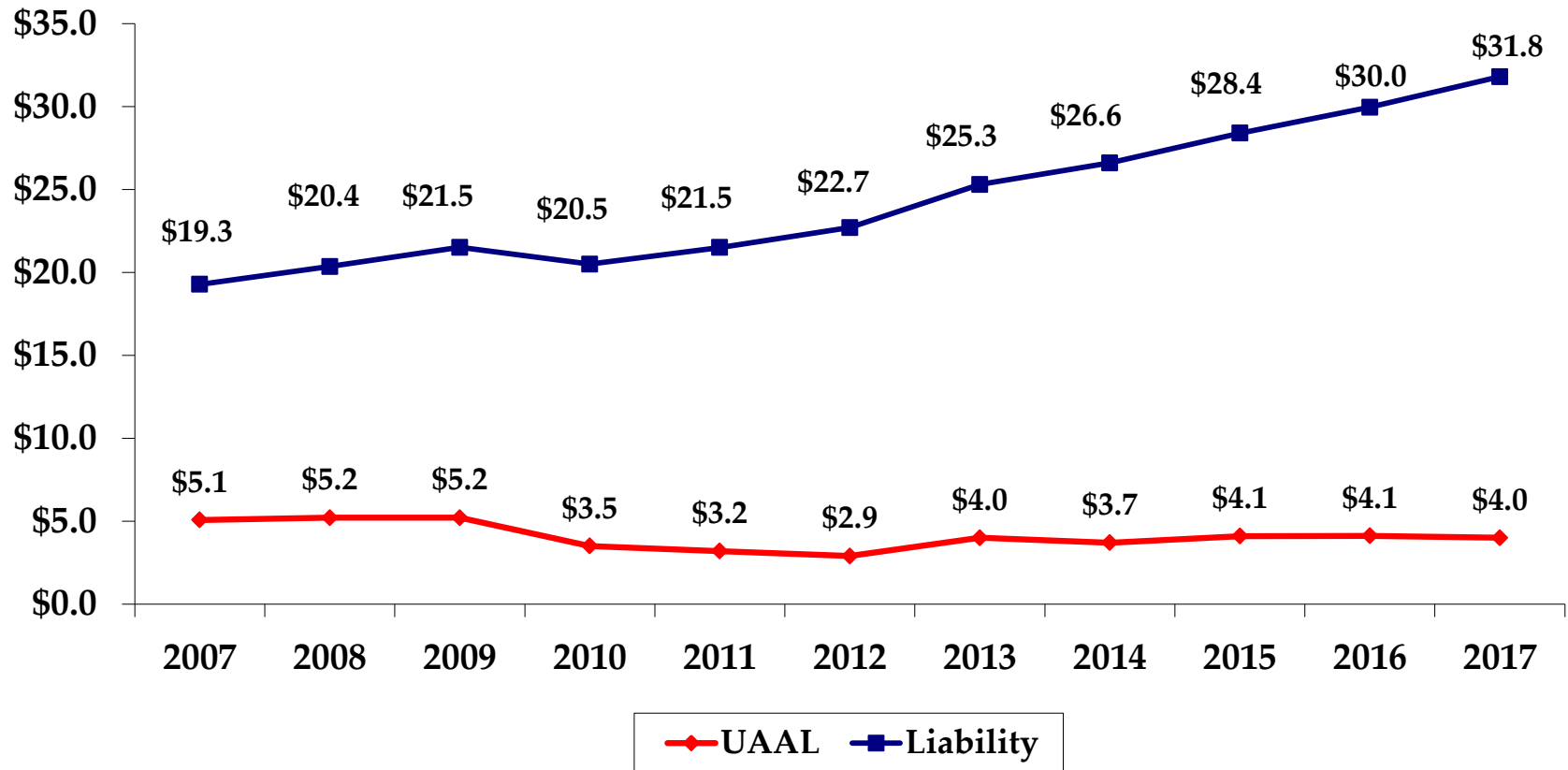


- AVA is currently 97.2% of MVA, was 102.4% last year
AVA was Book Value prior to 2009

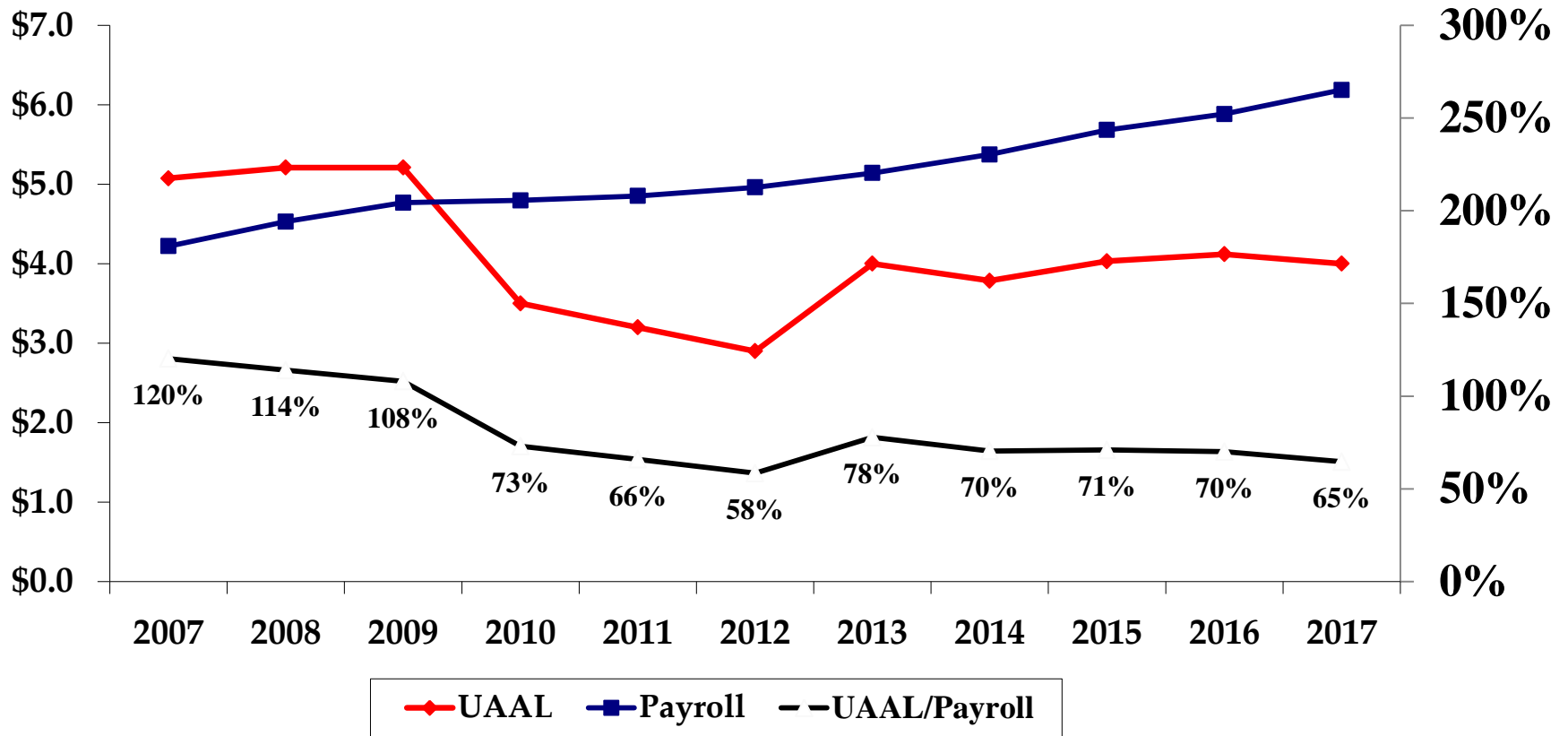
Historical Dollar Weighted Contribution Rates for TMRS



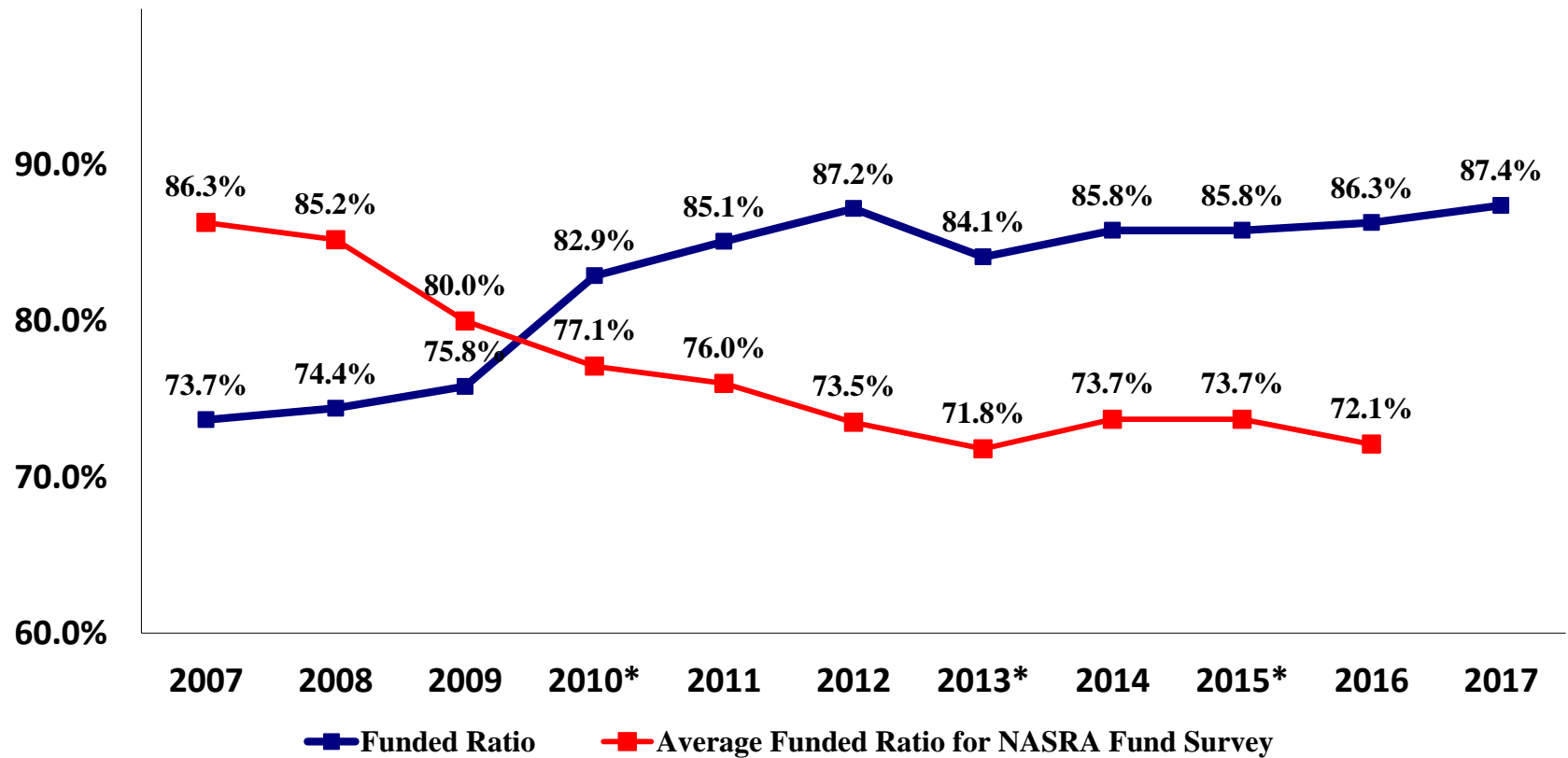
Relative Size of UAAL to AAL



Relative Size of UAAL to Payroll

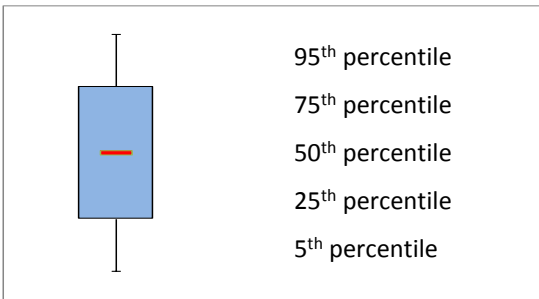
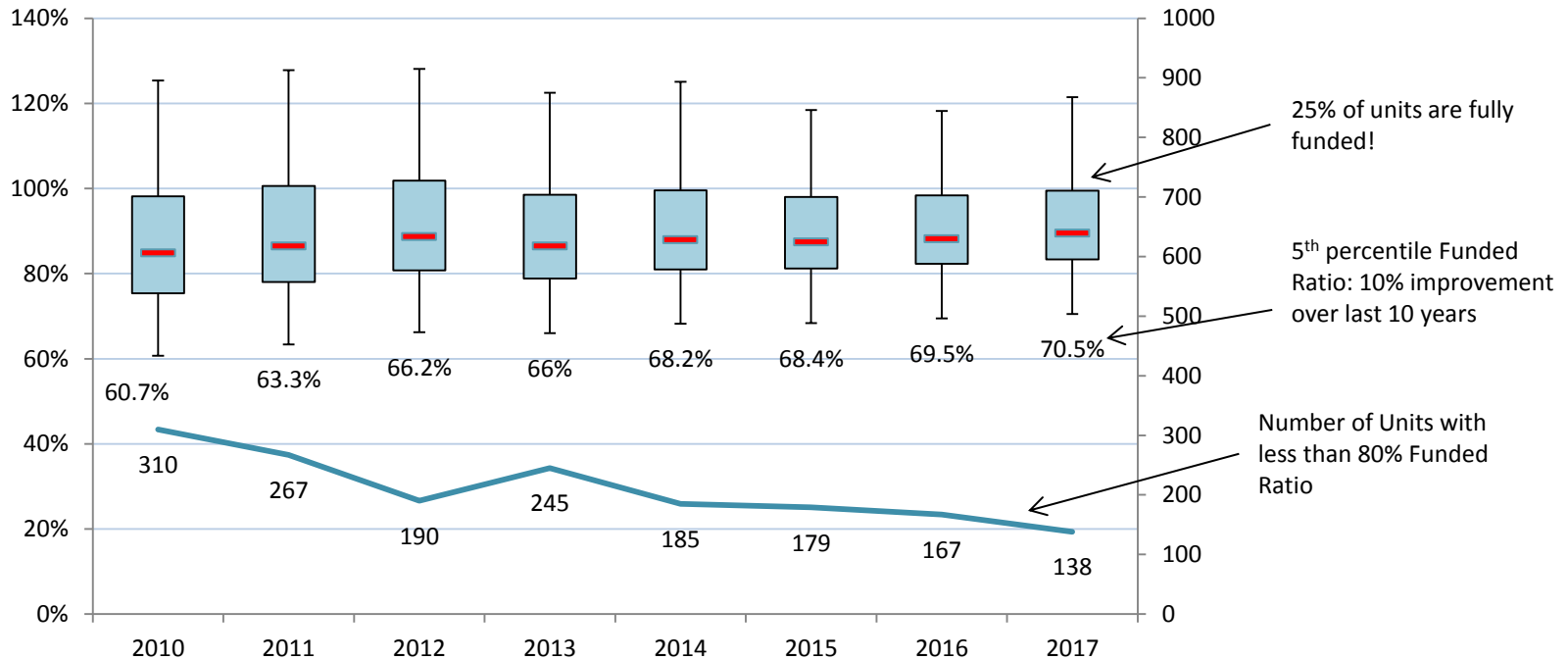


Funded Ratio Percentages: Compared to Your Peers



- Restructure in 2010, Change to EAN in 2013, 6.75% Discount Rate in 2015

Distribution of Funded Ratio Percentages



The percentile represents the proportion of employers below the point. For example, the 75th percentile is 99%, meaning that 75% of cities have a funded ratio less than 99%. Conversely, 25% of the cities have a funded ratio of 99% or greater.

GRS – *What Differentiates Us?*

- ◆ Texas Leadership
- ◆ Experienced, Fully Credentialed, and Consistent Client Service Team
 - Focused on large public retirement systems
 - Deep bench strength with each member having a role
 - Proven track record of credibility, success, and accountability
- ◆ Exceptional communication: emphasizing EDUCATION, not just information
- ◆ Impeccable reputation for quality work and support to the public sector community
- ◆ Dedicated Research Group that publishes a continuing series of newsletters, articles on latest trends and upcoming changes, and technical alerts all focused on public employee benefit programs
- ◆ Technology
- ◆ Innovation
- ◆ ... all at a fair price

Thank you!

We would be delighted and honored
to continue our successful
partnership with

